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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/086,014	07/02/93	PON	LOP1022MAY
MARK A. HAYNES P.O. BOX 371436 MONTARA, CA 94037			HEARTNEY, EXAMINER
ESM1/1115			ART UNIT: 2501 PAPER NUMBER: 12
DATE MAILED: 11/15/94			

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on Sept. 23, 1994 This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — day(s) from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-20, 22-35 are pending in the application.
Of the above, claims — are withdrawn from consideration.
2. ☒ Claim 21 has been cancelled.
3. ☒ Claims 1-6 are allowed.
4. ☒ Claims 7, 8, 16, 19, 20, 26 and 30 are rejected.
5. ☒ Claims 9-15, 17, 18, 22-25, 27-29 and 31-35 are objected to.
6. ☐ Claims — are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on —. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on — has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed on —, has been ☐ approved. ☐ disapproved (see explanation).
12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. —; filed on —.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

Art Unit 2501

Applicant's communication, filed September 23, 1994, has been carefully considered by the Examiner. The page 3, on lines 3 of the Remarks, the applicant states that "claim 19 with this response, has been cancelled" but after that the applicant discussed about claim 20, which depend on claim 19. Therefore, the Examiner is confused about claims 19 and 20. Are they cancelled or still pending. Please explain it.

The Examiner agree with the applicant that Payne et al. does not disclose the particular area having first and second widths that both extend to the reflecting surface on claim 7 and a waveguide having a tip with a glass cladding extending to a distal end of the tip in claim 26. However, these limitations are well known in the art. For example Abe et al. discloses a fiber for lateral beaming of laser beam comprising the probe with the distal end is a quartz fiber (11) constituted by a core and cladding layer. The combination of two teachings Payne et al and Abe et al. meet all the limitations in claims 7,8,16,19,20,26 and 30. This action is made final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7,8,16,19,20,26 and 30 are rejected under 35 U.S.C. § 103 as being unpatentable over Payne et al. in view of Abe et al. (submitted by the applicant).

Payne et al discloses in fig.1a an optical fiber tip for use

in a laser delivery system comprising a waveguide (3) having a tip (1) for communicating electromagnetic radiation of the laser beam L_1 in a propagation direction to the tip of the waveguide (3);

a reflecting surface having a bevelled surface on the tip of the waveguide and having a reflective coating is deposited on the flat elliptical surface; a transmitting surface on the tip of the waveguide having a particular area within which radiation propagating in the lateral/direction is incident at below a critical angle; and the reflecting surface and the particular area having first and second widths and the second width is essentially equal to or greater than the first width.

Payne et al. does not disclose the new limitation in claims 7 and 26 as mention above. However, Abe et al. reference discloses this limitation (as Examiner pointed out above).

It would have been obvious to provide the reflecting surface with the first and second widths both extend to the reflecting surface or a waveguide having a tip with a glass cladding extending to a distal end of the tip (device of Abe et al. teaching). In the optical fiber tip of Payne et al. in order to avoid, from the harmful leaking beam when insert the probe in a cavity of an internal organ in a living body and also avoid of breakage in use. The limitations of claims 8,19,20 and 30 are disclosed in Payne et al.

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The limitations in claims 16,20 and 26 are disclosed in combine teaching of Payne et al and Abe et al.

Claims 9-15,17,18,22-25,27-29 and 31-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-6 are allowable over the prior art of record.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to Phan T. H. Palmer at telephone number (703) 308-4848.

Palmer/ab
November 09, 1994

PTHP


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SUPERVISORY PATENT EXAMINER
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